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29 September 2006

Mr. Robert Schneider, Chairman
Ms. Pamela Creedon, Executive Officer
Mr. Jack DelConte, Principal WRCE
Ms. Wendy Wyels, Environmental Program Manager
Mr. Mark List, Sr. Engr. Geologist
Mr. Guy Childs, Engr. Geologist
Regional Water Quality Control Board
Central Valley Region
11020 Sun Center Drive, Suite 200
Rancho Cordova, CA 95670-6144

VIA: Electronic Submission
Hardcopy if Requested

RE: Cease and Desist Order for Napa Berryessa Resort Improvement District Wastewater Treatment System, Napa County

Dear Messrs. Schneider, DelConte, List, Childs and Mesdames Creedon and Wyels:

The California Sportfishing Protection Alliance, Watershed Enforcers and San Joaquin Audubon (CSPA) has reviewed the Central Valley Regional Water Quality Control Board's (Regional Board) tentative Cease and Desist Order (hereinafter Order) for Napa Berryessa Resort Improvement District Wastewater Treatment System, Napa County (Discharger) and has serious concerns regarding the Order.

CSPA requests status as a designated party for this proceeding. CSPA is a 501(c)(3) public benefit conservation and research organization established in 1983 for the purpose of conserving, restoring, and enhancing the state's water quality and fishery resources and their aquatic ecosystems and associated riparian habitats. CSPA has actively promoted the protection of water quality and fisheries throughout California before state and federal agencies, the State Legislature and Congress and regularly participates in administrative and judicial proceedings on behalf of its members to protect, enhance, and restore California's degraded surface and ground waters and associated fisheries. CSPA members reside, boat, fish and recreate in and along waterways throughout California, including Napa County.

Our specific comments follow:

1. The Order fails to require a complete I&I Assessment

Finding No 9 states, "In April 1996, the Discharger submitted a report titled *"Capacity Study for the Wastewater Treatment and Disposal Facilities for Napa*

Berryessa Resort Improvement District." In summary, the report concluded that excessive infiltration/inflow exists at the facility and significantly impacts treatment and reuse systems." However, as indicated by Finding No. 13, the Discharger never conducted an adequate I&I assessment and the minor sewer repairs that were done were ineffectual.

After a decade of sewer spill caused by I&I problems, the Regional Board has finally decided to require the Discharge to complete an I&I study that the Discharger started in 1996. However, the CDO fails to require the Discharger to conduct a detailed I&I assessment and in fact likely sets the Discharger up for failure. Given the limited information and data requirements for the I&I study, the Discharger is likely to spend money repairing sewer line without reducing sewage spills. Indeed, this is actually what happened last time.

The reduction and control of I/I in wastewater collection systems must be considered in the context of a disciplined and planned approach with provisions for a long-term sewer maintenance program. Assessing the I&I problem is a first step: one, which the Order ignores. For I/I assessment, the most common practice is a sanitary sewer evaluation survey and workplan that involves following six measures:

a. Quantify the I/I problem
b. Identify the I/I sources
c. Evaluate the cost-effective measure to reduce the I&I in a workplan
d. Implement the workplan repairs and sewer line replacement
e. Reassessment to evaluate if the workplan was successful
f. Implement a sewer maintenance program for long term control

It is often said of I/I in collection systems "…you can't manage what you can't measure". The Order fails to require the Discharge to quantify the I/I problem by assessing (or measuring) the extent of the I&I problem. A creditable I&I assessment involves a two-step process. First, the Discharger must make a serious attempt to locate and record information that relates to a variety potential I&I problems including observed overflows, measured or observed surcharges, reported bypasses, customer backup complaints, and chronic maintenance activities. This information can easily be compiled from maintenance records, work orders, past studies and engineering reports, sewer maps, complaint records, various department files, and interviews with field personnel who are responsible for maintenance and management. Once the data has been collected and recorded, it can displayed and evaluated in a way that will show possible relations between overflows, bypasses and other related factors such as capacity models, rainfall records, maintenance activities, and surcharged lines. In short, the Dischargers must identify and report to the Regional Board all the possible known "hot spots" where spills are likely happen.

Based on this information, the Discharger should submit map(s) of the sewer system and plot critical areas were spills might occur. The Discharger must develop a detailed spill prevention and mitigation plan (the Order is silent on this point) that

describes in detail the steps to be taken to prevent and minimize the discharge of raw sewage to surface waters. The spill plan must also incorporate a monitoring plan with maps of the receiving waters, public access points, and sample locations so that sample can be collected and signage posted when sewage spills occur. The Order must also require that the Discharger demonstrate that they have the necessary manpower and equipment available to fully implement the spill plan. The Discharger may have to arrange lease agreements for additional vactor trucks and large storage tanks if equipment cannot be purchased in time.

Smoke testing may be employed to locate I&I sources; however, during the winter season, wet soil conditions may hamper this method. The Discharger must be required to log each smoke test and photograph problem areas, such as smoke rising from gutter spouts.

The second step in quantifying I&I is to actually monitor wastewater flows at key points in the collection system. Normally, the collection system can be separated into watersheds. Watersheds can be further separated into basins and basins may be further separated into sub-basins if necessary. The Order fails to have the Discharge monitor flows in the collection system at all. Without flow monitoring the Regional Board has no possible way to determine compliance with I&I reduction except to wait for the next sewer spill.

The placement of the appropriate flow monitoring equipment is critical step and the Order must specify a minimum number of monitoring sites to be used and require that the data be reported to the Regional Board. In order to measure wastewater flows and their response to rainfall, the flow meter must record both depth and velocity of flow. (There are a number of flow meters available and some can even be rented.) The common industry practice for I&I monitoring is as follows:

a. One meter for every 30,000 – 50,000 feet of sanitary sewer
b. Flow meter recording set at 15-minute intervals
c. Flow meter capable of measuring surcharge and flow reversal
d. One rain gauge for every 2-4 flow meters
e. Minimum monitoring period – 42 days (60 days, optimal)
f. Measurement of 6-8 separate rainfall events
g. Monitoring period during high seasonal groundwater

The Discharger may use simple instruments like a flow probe to measure water velocity and depth. However, flow probes do not record data. While the flow probe is good for spot flow checks or random checks of the installed flow meters, the data must also be recorded and sent to the Regional Board.

After the flow data has been tabulated, a linear regression analysis can be used to make comparisons between the measured I/I and the corresponding rainfall intensity. This regression analysis will provide two vital pieces of information to the Regional Board useful for quantifying the I/I problem. First, a regression analysis allows the

Discharger to make comparisons between each basin in order to identify the top priority basins for further study, hot spots and I/I reduction areas to focus smoke testing and line videos. Secondly, the analysis will provide useful design information for replacement sewers necessary to reduce or eliminate an overflow or bypass. Therefore, the Order must require the Discharger to conduct a linear regression analysis.

Only after the necessary information ahs been collected and analyzed can the Discharger prepare a meaningful I&I workplan and the Regional Board measure the Dischargers compliance with the Order. After the workplan has been completed, another round of flow monitoring is necessary in order to quantify the reductions in I&I and measure compliance with the Order.

Sewer repairs that reduce I&I are only a short term gain if the Discharger fails to implement a long term sewer maintenance schedule and then adequately staff and budget the necessary resources to implement it. The Order is silent on requirement that the Discharger demonstrate that sewer is and will be properly maintained. The Order should require the Discharger to submit a collection system maintenance manual.

Compliance Measures No. 8 and 9 must be revised to ensure that a meaningful I&I flow reduction plan is submitted and implemented by the Discharger.

2. The Order contains inadequate requirements for the RWD

Compliance Measure No.11 states, "Within 60 days of the Executive Officer's written concurrence with the *Final Wastewater Disposal Plan*, the Discharger shall submit a *Report of Waste Discharge* (RWD) to allow WDRs to be revised to reflect the proposed upgrades. The RWD consists of the Form 200 *(Application for Report of Waste Discharge)* and a technical report that addresses all items listed in Attachment B to this Order, "*Additional Information Requirements for a Report of Waste Discharge."*

The Order's Attachment B does not even make cursory effort to require the Discharger to demonstrate that the Final Wastewater Disposal Plan complies with Resolution 68-16. The CDO fails to require the Discharger to submit information and data sufficient to show the project will complies with BPTC and does not require a BPTC evaluation of the system and therefore, sets the Discharger up for failure. Without requiring the Discharger to conduct a BPTC assessment as part of the RWD, the CDO Final Wastewater Disposal Plan is likely to result in the Discharger spending money to construct a project only to find out at a future date that the WWTP does not comply with BPTC and must be redone. This practice is wasteful and bad engineering.

The RWD must include the following elements:

a. All waste constituents to be discharged (see priority pollutant list);
b. The background quality of the uppermost layer of the uppermost groundwater;

c. Groundwater monitoring data downgradient of the existing WWTP and application area,
d. The background quality of other waters that may be affected (discharges to reclamation canals, irrigation channels and surface waters);
e. The detailed underlying hydrogeology conditions such as hydraulic conductivity of the soils, capillary rise, groundwater gradient; effects of pumping has groundwater, well map showing locations of all water wells including springs and isolated wetlands within one mile of the WWTP/land application;
f. How treatment and control measures are justified as best practicable treatment and control;
g. The extent the discharge will impact the quality of each aquifer; and
h. The expected obtainable degree of degradation below water quality objectives

3. Order fails to include a Time Schedule Order

California Water Code (CWC) Section 13000 states, in part, that Legislature declares "…that the quality of all the waters of the state shall be protected for use and enjoyment by the people of the state." CWC Section 13000 demonstrates the Legislative intent that the "state must be prepared to exercise its full power and jurisdiction to protect the quality of the waters in the state from degradation originating inside or outside the boundaries of the state." In order to fulfill the Legislative intent to protect water quality, the State Water Resources Control Board adopted the Water Quality Enforcement Policy (Enforcement Policy) February 2002.

The Enforcement Policy states, "The primary goal of this Enforcement Policy is to create a framework for identifying and investigating instances of noncompliance, for taking enforcement actions that are appropriate in relation to the nature and severity of the violation, and for prioritizing enforcement resources to achieve maximum environmental benefits. Toward that end, it is the intent of the SWRCB that the RWQCBs operate within the framework provided by this Policy."

The Discharger has an extensive history of violations (Finding No. 6 through 45) and has repeatedly failed to comply with Regional Board Orders. The Enforcement Policy, page 19, states, "California Water Code section 13308 authorizes the RWQCB to issue a Section 13308 Time Schedule Order (13308 TSO) which prescribes a civil penalty if compliance is not achieved in accordance with the time schedule. The RWQCB may issue a 13308 TSO if there is a threatened or continuing violation of a cleanup and abatement order, cease and desist order, or any requirement issued under California Water Code sections 13267 or 13383." The Discharger has demonstrated a recalcitrant pattern of behavior towards the Clean Water Act, CWC and Regional Board Orders. CSPA believes, a 13308 TSO must be issued in conjunction with the CDO is appropriate.

4. The Order fails to get cost recovery for Regional Board's staff time and rewards the Discharger by not determining the Economic Benefit from the Violations

Regional Board members and staff have frequently excused their failure to protect water quality due to a shortage of staff resources. Yet the CDO inexplicably fails to require the Discharger to pay for cost recovery associated with the Regional Board's staff time. After the ten-year pattern of recalcitrant behavior shown by this Discharger, the Regional Board should be aware that 10 percent of the Dischargers consume 80 percent of staff resources. The Enforcement Policy, page 11, classifies the discharge of raw sewage and failure to provide reports are priority violation for which an Administrative Civil Liability Order is appropriate. Inexplicably, the Order fails to assess any penalties and is silent on the amount of economic benefit the Discharger has received from a decade of water quality violations, i.e. Finding No. 6 through 45. The Enforcement Policy, page 40, defines "Economic benefit is any savings or monetary gain derived from the acts that constitute the violation." At a minimum, the Regional Board must issue an ACLO must that recovers the economic benefit the Discharger has achieved.

The Enforcement Policy, page 41, states "Staff costs may be one of the "other factors that justice may require", and should be estimated when setting an ACL. Staff should estimate the cost that investigation of the violation and preparation of the enforcement action(s) has imposed on government agencies. This can include all activities of a progressive enforcement response that results in the ACL. Staff costs should be added to the amount…" The Order fails to show the amount of cost that the Regional Board has incurred for this Order. The CDO must consider "other matters that justice may require" and collect cost recovery for staff time spent developing the CDO.

CCR Title 23 Section 2200 states, "Each person for whom waste discharge requirements have been prescribed pursuant to section 13263 of the Water Code shall submit, to the State Board, an annual fee in accordance with the following schedules. The fee shall be submitted for each waste discharge requirement order issued to that person." The State Water Control Board is required to collect annual fees from Dischargers based on the threat and complexity of the discharge, which is determined by the Regional Board. The Discharger clearly has a much high threat and complexity than an otherwise compliant non-15 discharger. The Order fails to include a finding that the Discharger threat and complexity rating is 1A until such time as the CDO is rescinded.

5. Order Fails to Protect Public Health

The Regional Board has long expressed a strong desire to have the public actively involved in solutions to ongoing water problems. The Order fails to even consider the possible health risk that raw sewage poses to an unsuspecting and uninformed public. To that end, we believe that the Order should also require the Discharger to post a sewage spills report in the largest local newspaper in order to protect the public health. This public notification allows the public not only to avoid contact with contaminated water but also provides them the opportunity to monitor the effectiveness of the cleanup and

collect their own samples of the surface waters. The spill report should be posted in the newspaper within 48 hours following each wastewater spill. It should include the spill location, cause of the spill, total volume, surface water affected, sample monitoring results collected and corrective action taken to cleanup the spill and measures that will be implemented to prevent reoccurrence. CSPA also recommends that the Regional Board post spill reports on its webpage.

Thank you for considering these comments. If you have questions or require clarification, please don't hesitate to contact us.

Sincerely,

Bill Jennings, Executive Director
California Sportfishing Protection Alliance